

at least one temperature measurement element formed by the second structure in the metal layer; and

a moisture barrier arranged above the metal layer and formed at least in part by a nitride layer.

3. (Once Amended) The mass flow sensor according to claim 1, wherein:
the nitride layer is a silicon nitride layer.
8. (Once Amended) The mass flow sensor according to claim 1, further comprising:
a further nitride layer arranged between the frame and the metal layer.
9. (Once Amended) The mass flow sensor according to claim 8, further comprising:
a silicon oxide layer formed by a thermal oxidation and arranged between the further nitride layer.
10. (Once Amended) The mass flow sensor according to claim 9, wherein:
the further nitride layer includes a silicon nitride layer.
11. (Once Amended) The mass flow sensor according to claim 9, further comprising:
an oxide layer arranged in a recess area beneath the further nitride layer.
12. (Twice Amended) The mass flow sensor according to claim 9, further comprising:
an oxide layer arranged in the membrane and below the metal layer; and
a recess arranged beneath the further nitride layer;
wherein the recess does not contain the oxide layer.

Please also add new claims 19-23.

19. (New) A mass flow sensor, comprising:
a frame formed at least in part by silicon;
a membrane held by the frame;
a metal layer arranged above the frame;
a heating element formed by a first structure in the metal layer; and